

Greater Sage-grouse Record of Decision – Forest Plan Amendments for: Idaho and Southwest Montana, Nevada, Utah, and Wyoming.

Anthropogenic Disturbance Calculation Implementation Guide Version 1.2

Before a new project can be approved, Anthropogenic Disturbances must be calculated at the Biologically Significant Unit (BSU) and Project Area scales.

Anthropogenic Disturbances, in Forest Plan Amendments are defined as:

“Human-created features including but not limited to paved highways; graded gravel roads; transmission lines; substations; wind turbines; oil and gas wells and associated facilities; geothermal wells and associated facilities; pipelines; landfills; agricultural conversion; homes; grazing-related facilities and structures; and mines.”

The BLM considers these elements to be Anthropogenic Disturbances at the Biologically Significant Unit (BSU) Scale:

Oil and gas wells and facilities, Coal mines, Wind Energy facilities, Solar energy facilities, Geothermal facilities, Mines, Roads, Railroads, Powerlines, Communication Towers, Other vertical structures, and Other rights of way (above and below ground pipelines)

For calculating Disturbance at the Project Scale, there are another 7 Disturbance categories: Coalbed Methane Ponds, Meteorological Towers, Nuclear Energy Facilities, Airport Facilities and Infrastructure, Military Range Facilities and Infrastructure, Hydroelectric Plants, and Recreation Area Facilities and Infrastructure greater than 0.25 acres.

The BSU and Project Area

The Biologically Significant Unit (BSU), used in the calculation, is the BSU defined in the appropriate amendment.

The BSU is defined as a geographical/spatial area within greater sage-grouse habitat that contains relevant and important habitat that is used as the basis for comparative calculations to support evaluation of changes to habitat. Specific to state:

- **Utah** - a Biologically Significant Unit is considered the total priority habitat management area associated with a greater sage grouse population area.
- **Nevada** – Biologically Significant Unit is determined to be where greater sage grouse interactions have been documented between two or more population management units (areas delineated based on aggregations of GRSG lek locations, where potential for short-term genetic interchange among populations is high), which represent local GRSG population habitats and seasonal use in the sub-region.
- **Idaho** - a Biologically Significant Unit is considered all of the modeled nesting and delineated winter habitat, based on 2012 data, within priority and/or important habitat management areas within a Conservation Area. The shapefile for the BSU in Idaho can be found at [Idaho's Geospatial Clearinghouse](#).

- **Montana** - a Biologically Significant Unit is defined as all of the priority and sagebrush focal management areas. These maps are within the amendment.

The Project Area is created using GIS layers of the proposed project footprint, lek locations, and Priority Habitat Management Area (PHMA). To create a Project Area, 1) create a 4 mile buffer around the proposed project. 2) Identify any leks that fall within the 4 mile project buffer. 3) Create a 4 mile buffer around each lek that falls within the project buffer. 4) Merge the intersection of the project buffer, lek buffers, and mapped PHMA. The intersection of the layers is the Project Area for calculating the percent of area disturbed by Anthropogenic Disturbances.

Proposed Calculation Process

The currently proposed process for determining the level of Anthropogenic Disturbance is to use the calculator that the BLM has created, the Surface Disturbance Analysis and Reclamation Tracking Tool ([SDARTT](#)), or, in Wyoming and Montana, the Density and Disturbance Calculation Tool ([DDCT](#)).

There are potential discrepancies in the Disturbance categories, and datasets that were produced with them, between the BLM and Wyoming calculators and the Forest Service Disturbance definition. This potential issue is currently being examined.

Until this guide and collaborative process with the Bureau of Land Management (BLM) is revised and finalized, determine initial BSU and Project level Anthropogenic Disturbance Calculations by contacting the appropriate BLM State office for assistance.

Decision

Use the process for determining the Disturbance percentage and Density caps and follow the appropriate Standards and Guidelines.